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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,916	07/31/2003	Jian Qin	KCC 4963 (K-C 19,109)	9626
321	7590	05/30/2006	EXAMINER	
SENNIGER POWERS ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			CHAPMAN, GINGER T	
			ART UNIT	PAPER NUMBER
			3761	

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

### Office Action Summary

Application No.

10/631,916

<b>Applicant(s)</b>	
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QIN ET AL.

**Examiner**

Ginger T. Chapman

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.  
4a) Of the above claim(s) 1-12 and 26-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-25 and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-40 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/27/03 & 1/3/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date.         .
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:         .

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Group II in the reply filed on 3 April 2006 is acknowledged. The traversal is on the grounds that all groups have an element in common because they are directed to materials and methods of making materials comprising cross-linked polymers and therefore the searches required for all groups may be coextensive and could be searched and examined together without serious undue burden. This is not found persuasive because of the reasons set forth in the Election/Restriction requirement, mail date 2 March 2006, wherein the different status and different classification of groups of inventions have been identified. Applicants' traversal is also not found persuasive because the consideration of undue burden is one that must be made by the Examiner, Applicants argument that the search of one invention may result in a search of the other inventions has been considered, but is not persuasive insofar as the searches are not coextensive and additional search would, of necessity, be required for the combinations of inventions. Applicant has not pointed out wherein either (1) the reasons advanced by examiner to establish distinctiveness between the inventions as claimed and grouped or (2) the evidence of separate status, classification and/or search are in error.

The requirement is still deemed proper and is therefore made FINAL.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 13-25 and 40 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Azad et al (WO 03/043670).

With regard to claim 13, Azad et al disclose a surface treated absorbent material comprising a superabsorbent material (p. 1, 5-10) comprising a cross-linked polymer comprising about 75 weight percent anionic polymer (p. 2, l. 40-45;), and a surface treatment applied to the superabsorbent material the surface treatment comprising a water soluble non-cross-linked

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polymer (p. 8, ll. 5-30; p. 40, ll. 35-45) comprising at least about 50 weight percent cationic polymer (p. 8, ll. 20-30; p. 11, ll. 1-2; p. 75-77, table 2 samples; examples 1-3).

With regard to the limitation of a gel stiffness index of at least about 0.8, Azad et al disclose the absorbent material is of the same type and formed in the same manner as the instant invention. The instant specification at p. 19 [0056] that it is the cationic polymer surface treatment that provides the free swell gel permeability and gel stiffness index. Therefore it is inherent in the absorbent material that it has the gel stiffness index of at least about 0.8.

When the structure of the composition recited in the reference is substantially identical to that of the claims of the instant invention, claimed properties or functions are presumed to be inherent (MPEP § 2112-2112.01). A prima facie case of either anticipation or obviousness has been established when the reference discloses all the limitations of a claim, (in this case, a gel stiffness index as determined by tests) except for a property or function (in the present case test values of 0.8 and 0.85) and the examiner reasonably believes that the reference inherently possesses properties that anticipate or render obvious the claimed invention and thus has a basis for shifting the burden of proof to applicant, as per *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

With regard to claims 16 and 17, Azad et al disclose the superabsorbent material has a centrifuge retention capacity of at least about 20g/g and of at least about 25 g/g (Table, p. 75, ll. 25-30; p. 17, ll. 25-35; p. 20, l. 19; p. 18, ll. 5-6).

With regard to claim 18, Azad et al disclose the cationic polymer is polyvinyl amine (p. 32, ll. 20-30).

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With regard to claim 19, Azad et al disclose the concentration of cationic polymer is in the range of about 0.05 to about 5 weight percent of the superabsorbent material (p. 73, l. 32; p. 16, l. 35).

With regard to claim 20, regarding the limitation of a gel stiffness index of 0.85, see claim 1, *supra*.

With regard to claim 21, Azad et al disclose the surface treatment applied to substantially the entire outer surface of the superabsorbent material (p. 12, ll. 30-35; p. 40, l. 15).

With regard to claim 22, Azad et al disclose all aspects of the claimed invention but do not expressly disclose the surface treatment comprising the at least about 70 weight percent cationic polymer, the at least about 50 weight percent of the reference does not exclude an upper limit and thus includes at least about 70 weight percent cationic polymer.

With regard to claim 23, Azad discloses the surface treatment comprises in the range of about 0.5 to about 5 grams weight of water per 1 gram weight of superabsorbent material (p. 31, ll. 30-45; p. 75, ll. 40-45).

With regard to claims 14, 15, 24, 25 and 40, Azad discloses the ability of a surface treated absorbent material to have free swell gel bed permeability and gel bed permeabilities under load as determined by tests (p. 62; p. 63, l. 10; table, p. 75, 78) but does not perform the same tests as the instant specification and thus does not expressly disclose values for the claimed tests. The absorbent material is of the same type and formed in the same manner as the instant invention. The instant specification discloses at p. 19-20 that the surface treatment having a potential for becoming charged opposite that of the superabsorbent material substantially increases the free swell and gel permeability under load values. Therefore it is inherent in the

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material that the surface treatment provides the opposite charge to that of the superabsorbent material that results in increased free swell and gel permeability under load.

When the structure of the composition recited in the reference is substantially identical to that of the claims of the instant invention, claimed properties or functions are presumed to be inherent (MPEP § 2112-2112.01). A prima facie case of either anticipation or obviousness has been established when the reference discloses all the limitations of a claim, (in this case, free swell and gel bed permeability under load as determined by tests) except for a property or function (in the present case test values of  $2000 \times 10^{-9}$  cm<sup>2</sup> and 200 to 400 x  $10^{-9}$ , respectively) and the examiner reasonably believes that the reference inherently possesses properties that anticipate or render obvious the claimed invention and thus has a basis for shifting the burden of proof to applicant, as per *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ginger T. Chapman whose telephone number is (571) 272-4934. The examiner can normally be reached on Monday through Friday 8:30 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ginger Chapman  
Examiner, Art Unit 3761  
05/14/06

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**TATYANA ZALUKAEVA**  
**SUPERVISORY PRIMARY EXAMINER**

